

IN THE ABSTRACT:

Please amend the Abstract as follows:

Delete line 1 and insert the following heading:

Abstract

ABSTRACT OF THE DISCLOSURE

~~The invention relates to a~~ A mass spectrometer comprising ~~comprising~~ includes an ion source for producing a primary ion beam, which has a heatable ion emitter coated by a liquid metal layer essentially comprised of pure metallic bismuth or of a low-melting-point alloy containing, in essence, bismuth. A bismuth ion mixed beam can be emitted by the ion emitter under the influence of an electric field. From said bismuth ion mixed beam, one of a number of bismuth ion types whose mass is a multiple of monatomic singly or multiply charged bismuth ions Bi_1^{p+} , is to be filtered out in the form of a mass-pure ion beam that is solely comprised of ions of a type Bi_n^{p+} , in which $n \geq 2$ and $p \geq 1$, and n and p are each a natural number.